THE INSTITUTE OF PHYSICS

47, BELGRAVE SQUARE, LONDON, S.W.1.

BULLETIN

No. 2 — *Information in this circular is not intended for general publication; your copy should not therefore be passed to a library.* — FEBRUARY 1950

DIARY OF INSTITUTE MEETINGS

Members may bring guests to any of the meetings listed below unless otherwise indicated.

February 14th (Electronics Group). 5.30 p.m. at the Institute's House, 47 Belgrave Square, S.W.1.
Dr. G. H. Metson, "The Vacuum Factor of the Oxide-Cathode Valve."

February 17th (Industrial Spectroscopy Group). 11.30 a.m. at the University of Sheffield.
Symposium on **"Calibration Line Drift in Routine Spectrochemical Analysis."**

February 17th (Manchester and District Branch). 7.0 p.m. in the New Physics Theatre of the University of Manchester.
Dr. F. A. Vick, "Musical Acoustics."

February 22nd (London and Home Counties Branch). 5.30 p.m. at the Institute's House, 47 Belgrave Square, S.W.1.
Branch Annual General Meeting followed by **Dr. H. Lowery, "Physics in Education."**

February 23rd (Midland Branch). 5.0 p.m. at the University of Birmingham, Edmund Street.
Professor W. Sucksmith, "Magnetic Phase Analysis."

February 24th (Scottish Branch). 7.0 p.m. at the Natural Philosophy Department of the University of Glasgow.
Mr. J. A. Ratcliffe, "Radio from the Sun and Stars."

February 27th (Scottish Branch). 4.30 p.m. at the Natural Philosophy Department, Marischal College, Aberdeen.
Mr. J. A. Ratcliffe, "Radio from the Sun and Stars."

March 6th (North-Eastern Branch). 7.0 p.m. in Lecture Theatre No. 1 of the Physics Department, King's College, Newcastle-upon-Tyne.
Professor S. Tolansky, "Multiple-Beam Interferometry: Studies with Metals, Oscillating Quartz and Mica."

March 7th (Scottish Branch). 7.0 p.m. at the Natural Philosophy Department of the University of Glasgow.
Professor S. Tolansky, "Optical Methods in the Study of Surfaces."

March 9th (Stress Analysis Group). 6.0 p.m. at the Institute's House, 47 Belgrave Square, S.W.1.
Informal discussion introduced by **Mr. R. G. Manley, "Computation of Rosette Readings."**

March 14th (Electronics Group). 5.20 p.m. at the Institute's House, 47 Belgrave Square, S.W.1.
Group Annual General Meeting followed (at 5.30 p.m.) by **Mr. A. G. Milnes, "Magnetic Amplifiers and Some Related Devices."**

March 16th (Midland Branch). 5.0 p.m. at the University of Birmingham, Edgbaston.
Professor N. F. Mott, "Some Advances in the Theory of Creep in Metals."

March 17th (Electronics Group). 6.30 p.m. at 32 Welbeck Street, London, W.1.
"The Biological Effects of Non-Ionizing Radiations with Particular Reference to Microwaves."

March 17th (Manchester and District Branch). 7.0 p.m. in the New Physics Theatre of the University of Manchester.
Professor W. Sucksmith, "The Determination of Phase Boundaries by Magnetic Methods."

March 18th (Education Group and South Wales Branch). 3.0 p.m. at the Technical College, Cardiff.
Several papers on **"The Place of Physics in School Education."**

NOTICES TO MEMBERS

Journals and Subscriptions

Members are reminded that subscriptions became due on January 1st; it would help the work of the Headquarters staff if payments were sent as early as possible. The work of collecting subscriptions is made much lighter if Members arrange to pay by Bankers' Order. Forms will be sent on request.

As Members now have a choice of monthly journal without additional payment, a statement of preference must be sent before any issues of the 1950 volumes can be dispatched. Members who have not yet done so are asked to inform the secretary which journal they wish to receive.

Members' Personal Copies of Publications

One or two firms have recently ordered Institute publications for their libraries at the special members rate in the names of Members of the Institute who are on their staffs. Members are reminded that the concession through which they are enabled to obtain journals at the nominal price of £1 1s. 0d. per volume is a strictly personal privilege of Membership and that journals so obtained should be for the personal use of Members. The Institute relies upon sales of its journals at the full retail price to meet the printing and overhead expenses of publications to which, of course, Members contribute by their subscriptions to the Institute.

Notes for Authors

An entirely new edition of *Notes on the Preparation of Contributions to the Institute's Journals and other Publications* has recently been prepared and will be available shortly. The list of contents is as follows: (1) The Institute's Publications. (2) Types of Papers and Notes accepted for the Journals. (3) Conditions of acceptance of Contributions. (4) Preparation of Text. (5) Form of Script for Submission. (6) Illustrations and Diagrams. (7) Tabular Matter. (8) Mathematics. (9) Numbers, Dates, and Units. (10) Correction of Proofs. (11) Author's Copies and Reprints. (12) Republication. (13) Communications. (14) Acknowledgments. (15) Appendix (Spellings and Abbreviations). (16) Short Bibliography. Members who are preparing papers should read the booklet before submitting them for publication. Copies are obtainable, free by Members, on application to the Secretary of the Institute. The charge to non-members is two shillings, including postage.

NEWS OF MEMBERS

Fellows

The following public honours have been announced:

C.B.E.: Prof. A. M. Tyndall. O.B.E.: J. G. Pearce.

The following award has been made:

Sir James Chadwick has been awarded the Faraday Medal by the Institution of Electrical Engineers.

The following professional appointments have been notified:

A. B. D. Cassie—Director of Research, Wool Industries Research Association, Leeds.

A. E. De Barr—Head of Physics Division, Research Laboratories of Elliott Brothers (London) Ltd., Borehamwood, Hertfordshire.

R. W. France—Lecturer in Physics, Department of Electrical Engineering and Physics, College of Technology, Belfast.

A. L. Reimann—Research Professor in Physics, University of Queensland, Australia.

Associates

The following election has been announced:

S. L. Seaton has been elected a Fellow of the New York Academy of Sciences.

The following professional appointment has been notified:

T. R. Lomer—Assistant Lecturer in Physics, St. Mary's Hospital Medical School, London.

REPORTS AND OFFICIAL PUBLICATIONS

The following Reports and Official Publications have been received and are deposited in the Members' Room:

Annual Report of the Chief Inspector of Factories, 1948. Pp. 160. (London: H.M. Stationery Office.) Price 3s. net. Includes a short statement of the concern of the Factory Department for the radiological hazards in industry.

British Empire Cancer Campaign Twenty-Sixth Annual Report, 1948. Pp. 340. (London: British Empire Cancer Campaign.)

Shirley Institute Year Book, 1949. Pp. 112. (Manchester: British Cotton Industry Research Association.) Price 5s. net. The first of its kind; includes a history of the Association and a description of the wide range of its activities.

British Hydromechanics Research Association Annual Report (1948–49). Pp. 28. (London: British Hydromechanics Research Association.)

Marconi College. Pp. 32. (London: Marconi's Wireless Telegraph Co. Ltd.) Details of facilities for postgraduate training in radio engineering at the College.

Marconi Training. Pp. 40. (London: Marconi's Wireless Telegraph Co. Ltd.) The second of a series dealing with apprenticeship opportunities with the English Electric Group of Companies.

FORTHCOMING CONFERENCES

International Congress of Radiology

The Sixth International Congress of Radiology will be held in London from July 23 to 29, 1950. The Headquarters will be at the Central Hall, Westminster, and meetings will also take place at Church House and Caxton Hall. There will be a scientific exhibition at Central Hall and a technical exhibition of apparatus in the Halls of the Royal Horticultural Society. Those wishing to attend the Congress should apply before April 1st on the form which is obtainable from the Secretary-General, Sixth International Congress of Radiology, 45 Lincoln's Inn Fields, London, W.C.2.

The Institute's Industrial Radiology Group is arranging for its summer meeting to take place in one of the halls of the Royal Horticultural Society; it will include a members' exhibition. Full details will be circulated to members of the Group.

Symposium on Molecular Structure and Spectroscopy

A Symposium on Molecular Structure and Spectroscopy will be held at the Mendenhall Laboratory of Physics, Ohio State University, Columbus, from June 12 to 17, 1950. The subjects discussed will include the interpretation of molecular spectroscopic data and methods of obtaining such data. Facilities will be available for residence at the University. Copies of the programme and further information may be obtained from Professor H. H. Nielsen, Mendenhall Laboratory of Physics, The Ohio State University, Columbus, 10, Ohio.

"I have grudgingly come to the belief that physicists are people, differing from the common run of humanity only in that from time to time they tend to speak a strange language of their own, much of which they understand."

STEPHEN WHITE.

THE REGISTER

ELECTIONS TO MEMBERSHIP

Fellows

An asterisk (*) indicates transfer from Associateship.

Eisenschitz, Robert Karl, Dr.Phil., Reader in Theoretical Physics, Queen Mary College, London.

*Nurse, Ronald Walter Brown, M.Sc., Principal Scientific Officer, Building Research Station, Garston.

*Schneider, Erich Ernst, Ph.D., Lecturer in Physics, King's College, Newcastle-upon-Tyne.

Smith, Clarence Joseph, M.Sc., Ph.D., Assistant Director, Physical Laboratories, Royal Holloway College, London.

*Stephenson, Maurice, B.Sc., Physicist, Royal Dutch-Shell Oil Group, The Hague.

*Tolansky, Samuel, D.Sc., Ph.D., Professor of Physics, Royal Holloway College, London.

*Weintroub, Sidney, B.A., Senior Lecturer in Physics, University College, Southampton.

Associates

Bellman, Brian Maynard, B.Sc., Technical Assistant, British Telecommunications Research Ltd., Taplow.

Burfoot, Jack, B.A., Research Student, Cavendish Laboratory, Cambridge.

Cardwell, Laurence, B.Sc., Senior Physics Master, Mount St. Mary's College, Sheffield.

Cliffe, Percy, B.Sc., Medical Student, King's College, London.

Connor, Robert Dickson, B.Sc., Ph.D., Lecturer in Natural Philosophy, University of Edinburgh.

Coupland, John Herbert, B.A., Research Student, King's College, London.

Franks, Joseph, B.Sc., Research Student, Birkbeck College, London.

George, Edgar, B.Sc., Senior Lecturer in Physics, Wolverhampton Technical College.

Grimwood, Henry William, B.Sc., Physicist, Thorn Electrical Industries Ltd., London.

Habberjam, Gerald Morley, B.Sc., Research Assistant, University of Leeds.

Heavens, Oliver Samuel, B.Sc., Lecturer in Physics, University of Reading.

Linacre, Edward Thornton, M.A., Scientific Officer, British Iron and Steel Research Association, London.

Lucas, Thomas Arthur, B.Sc., Physicist, South Eastern Gas Board.

Macaulay, James Morison, B.Sc., Ph.D., Lecturer in Natural Philosophy, Royal Technical College, Glasgow.

Pattinson, Kenneth Emerson, B.Sc., Head of Physics Department, Sunderland Technical College.

Peskett, Jean Margaret, B.Sc., Assistant Lecturer in Mathematics and Natural Philosophy, Royal Technical College, Glasgow.

Phillips, David Chilton, B.Sc., Research Student, University College, Cardiff.

Pratt, Alan William, B.Sc., Scientific Officer, Building Research Station, Garston.

Rajchenbaum, Niuma Benjamin, B.Sc., Research Physicist, Linen Industry Research Association, Lambeg, Co. Antrim.

Ranade, Jagannath Dattatraya, M.Sc., Research Worker, Royal Holloway College, London.

Shepherd, Alan Arthur, M.Sc., Research Student, University of Manchester.

Smith, John Reginald William, B.Sc., Research Student, The Polytechnic, Regent Street, London.

Stanley, Eric, B.Sc., Research Student, University College, Cardiff.

Tennent, Ralph Martin, B.Sc., Technical Assistant, Evershed & Vignoles Ltd., London.

Williams, Peter Stephen, B.Sc., Technical Officer, Imperial Chemical Industries Ltd. (Paints Division), Slough.

Wootton, Peter, B.Sc., Physicist, Radiotherapy Department and National Radium Centre, Glasgow Royal Infirmary.

Wright, Kenneth Herbert Reginald, B.Sc., Research Student, University of Reading.

Graduates

Arrowsmith, William, B.Sc., Designs Engineer, British Insulated Callender's Cables Ltd., Acton.

Atherton, Bernarr Francis, B.Sc., Senior Physics Master, Kingsbury County Grammar School, London.

Barber, Derek, B.Sc., Scientific Officer, Telecommunications Research Establishment, Malvern.

Baxter, Charles Henry, B.Sc., Research Assistant, Ferranti Ltd., Edinburgh.

Bridge, Noel Keith, B.Sc., Research Assistant, British Rayon Research Association, Manchester.

Brown, James Graham, B.Sc., Physicist, Imperial Chemical Industries Ltd. (Dyestuffs Division), Blackley.

Brown, Walter Spenceley, B.Sc., Lecturer in Physics, Chance Technical College, Smethwick.

Carrington, Roy Aldous George, B.Sc., Chemist, The Shell Refining and Marketing Co. Ltd., Chester.

Chapman, Dennis Richard, B.Sc., Senior Physicist, Research and Development Division, Baird and Tatlock Ltd., London.

Cohen, Emanuel, B.Sc., Research Student, King's College, London.

Coti, Peter John, B.Sc., Engineer, Electric and Musical Industries Ltd., Hayes, Middx.

Crook, Alan, B.Sc., Research Physicist, Tootal Broadhurst Lee Co. Ltd., Manchester.

Dixey, Kenneth Henry, B.Sc., Research Engineer, Ericsson Telephones Ltd., Nottingham.

Dudley, Albert, B.Sc., Royal Corps of Signals.

Ellis, Robert Frederick, B.Sc., Physicist, Courtaulds Ltd., Braintree, Essex.

Evans, Frank John, B.Sc., Assistant Master, County Grammar School for Boys, Bromley, Kent.

Farrell, Peter Patrick Joseph, B.Sc., Science Teacher, Glasgow.

Foster, William Warwick, B.Sc., Research Physicist, Imperial Smelting Corporation, Widnes.

Fowler, Gerald Nathan, B.Sc., Research Student, University of Manchester.

Fricker, Lawrence Charles John, Experimental Staff, Research Laboratories, General Electric Co. Ltd., Wembley.

Fuller, Alan Andrew, B.Sc., Lecturer in Physics, Dundee Institute of Technology.

Gardner, Erle, B.Sc., Experimental Staff, Research Laboratories, General Electric Co. Ltd., Wembley.

Gent, Alan Neville, B.Sc., Research Physicist, British Rubber Producers Research Association, Welwyn Garden City.

Gibbs, James Edmund, B.Sc., Research Student, Imperial College of Science and Technology, London.

Gray, Alan Lyle, B.Sc., Physicist, The Plessey Co., Ilford, Essex.

Guest, Stephen, B.Sc., Research Assistant, Ferranti Ltd., Edinburgh.

Haig, George Youngson, B.Sc., Assistant Physicist, Research Department, Babcock and Wilcox Ltd., Renfrew.

Hall, Kenneth David, B.Sc., Research Student, University College, Hull.

Harrison, Alan, B.Sc., Junior Physicist, Metropolitan-Vickers Electrical Co. Ltd., Manchester.

Jolliffe, Kenneth Herbert, B.Sc., Research Student, University College, London.

Jones, David, B.Sc., Assistant Experimental Officer, Admiralty Research Laboratory, Teddington.

Kosky, Raymond Simeon, B.Sc., Laboratory Assistant, "Osram," General Electric Company Glassworks, Wembley.

Laker, William Eric, B.Sc., Technical Assistant, Bristol Aeroplane Company.

Little, Philip Frederick, B.A., Research Student, Clarendon Laboratory, Oxford.

Marriott, John, B.Sc., Student, University of Liverpool.

Martin, Richard Geoffrey, Research Physicist, Shell Refining and Marketing Co. Ltd., Chester.

Moore, Brian Dynadale, B.Sc., Physicist, Rolls-Royce Research Laboratories, Derby.

Morgan, Thomas Roger, B.Sc., R.E.M.E.

Muirhead, William Richard Hugh Fraser, B.Sc., Research Student, University of Bristol.

Murray, Donald, B.Sc., Assistant Experimental Officer, Armaments Research Establishment.

Olds, Geoffrey Charles Edward, B.Sc., Physicist, The British Thomson-Houston Co. Ltd., Rugby.

Owen, Glynn Meirion, B.Sc., Junior Assistant Physicist, St. Bartholomew's Hospital, London.

Patterson, Henry, B.Sc., Assistant Technical Officer, Imperial Chemical Industries Ltd., Billingham.

Pattison, John Robert, Research Student, Imperial College of Science and Technology, London.

Pickering, Thomas John, Lecturer in Physics, Constantine Technical College, Middlesbrough.

Roberts, Bernard, B.Sc., Research Officer, Guest Keen and Nettlefold Group Services Ltd., Wolverhampton.
Saxby, William Norman, B.Sc., Air Survey Liaison Section, Royal Engineers.
Scott, Reginald, B.Sc., Research Physicist, The British Ceramic Research Association, Stoke-on-Trent.
Smith, Eric Thomas, B.Sc., Temporary Senior, Kodak Ltd., Harrow.
Taylor, Richard William, B.Sc., Experimental Staff, Research Laboratories, General Electric Co. Ltd., Wembley.
Thomas, Dewi Gwynfa Bailey, B.Sc., A.R.C.S., Assistant, Physics Department, British Iron and Steel Research Association, Swansea.
Westerman, Kenneth, M.Sc., Junior Research Officer, British Cotton Industry Research Association, Manchester.
Wilkinson, Donald, B.Sc., Research Officer, Guest Keen and Nettlefold Group Services Ltd., Wolverhampton.
Williams, Charles Edington, B.Sc., Scientific Staff Research Laboratories, General Electric Co. Ltd., Wembley.
Wrist, Peter Ellis, B.A., Assistant Physicist, British Paper and Board Industry Research Association, Kenley.
Youd, Joyce Fairbairn, B.Sc., Editorial Assistant, Butterworths Scientific Publications, London.

Subscribers

Anderson, J., M.A., B.Sc., Airdrie.
Bennett, J., M.A., B.Sc., Glasgow.
Chalmers, T. M., B.Sc., Glasgow.
Downs, A. B., B.Sc., Glasgow.
Duffus, M. L., M.A., Glasgow.
Fletcher, M. F., London.
Hast, N., Dr. Tech., Sweden.
Hinsley, J. F., Sheffield.
Holiday, E. R., M.A., London.
Katzenell, D., B.Sc., Glasgow.
MacClean, M. F., B.Sc., Glasgow.
Riddell, W. J. B., Glasgow.
Robertson, D. E., B.Sc., Glasgow.
Rogers, A. E. S., B.Sc., Bath.
Sherrard-Smith, B. M., B.A., Glasgow.
Simpson, R. K., Glasgow.
Snell, C., M.Sc., London.
Stern, H., M.B., Ch.B., Glasgow.
Weir, C. D., B.Sc., Ph.D., Glasgow.
Weston, H., M.A., Glasgow.
Whiteley, C., Bailliestion.
Wilhelm, B., Villeguit, France.
Wilson, E. J., M.A., Glasgow.

Students

Axson, M., University College of Wales.
Bach, J. H., Research Laboratories, Elliott Bros. (London) Ltd., Borehamwood.
Becque, P. J., Chelsea Polytechnic, London.
Bodin, H. A. B., University of Glasgow.
Butterworth, I., University of Manchester.
Castle, P. J., Woolwich Polytechnic, London
Crossley, G., University of Manchester.
Cruickshank, J. J., University of Glasgow.
Franks, A., Battersea Polytechnic, London.
Fullick, A. A. A., Chelsea Polytechnic, London.
Gemmell, W., University of Glasgow.
Gibbs, P. G., Ministry of Supply, London.
Giles, G., University of Glasgow.
Gill, W. C., University of Glasgow.
Grant, D. T., De Havilland Engine Co., Edgware.
Johnston, G. M., University of Glasgow.
Lindsay, J., University of Glasgow.
Lord, E. B., University of Manchester.
Lord, P., University of Manchester.
MacIntyre, W. M., University of Glasgow.
MacCullum, R., University of Glasgow.
Morten, F. D., University of Manchester.
Pinnock, A. G., The Polytechnic, Regent Street, London.
Power, G., Manchester College of Technology.
Rossman, M. G., The Polytechnic, Regent Street, London.
Sherrard-Smith, K. I., University of Glasgow.
Shuttlewood, G. D., University College, London.
Sinclair, W. G., University of Glasgow.
Solomons, H., Acton Technical College.
Stewart, L. K., University of Glasgow.
Strong, I. B., University of Glasgow.
Wellman, W. L., The Polytechnic, Regent Street, London.

DECEASED

We regret to record the deaths of the following members:

Fellows—J. E. Barnard, J. H. Reynolds, Prof. R. Samuel.
Associates—J. E. Bocking, N. L. Phalnikar.
Student—J. I. Myers.
Subscribers—B. Patel, G. Pearce.

ADDRESSES WANTED

The present addresses or information concerning the whereabouts of the following are required for the Institute's Register. Their last known location is given in brackets.

Associates.—T. Gardner (Usk, Mon.).
Prof. M. C. Bathija (Sindh, India).

APPOINTMENTS VACANT

Available only to applicants excepted from the Control of Engagements Order, 1947, No. 2021, unless the situation is also excepted.

The inclusion of particulars of a vacancy must not be taken to imply that the Institute necessarily approves of the terms offered or that might be offered. Candidates should satisfy themselves that these are satisfactory, and they may always refer to the Institute for advice. A suggested form of contract under which a qualified physicist might reasonably be expected to serve is available on request.

Physicists and Engineers offered interesting and progressive work in connection with development of electronic equipment and components (including radar, television, radio, audio-frequency and recording). Applications welcomed from men with degree or equivalent plus actual design experience. Salaries according to qualifications and experience. Please send full details to Personnel Department, E.M.I. Engineering Development Ltd., Blyth Road, Hayes, Middx.

Lever Brothers and Unilever Ltd., require the services of a Physicist with First or Second Class Honours degree for research and development work at their associated factory at Acton, London, to study particularly emulsions and their stability at low temperatures. Commencing salary in accordance with age and qualifications but not less than £450 per annum. Applications should be addressed to: Lever Brothers and Unilever Ltd., (FMD), Unilever House, Blackfriars, London, E.C.4.

Young Physicist required for Powder Metallurgy Development Laboratory. This position offers great scope for a person with ability, industry, and initiative. Remuneration will be commensurate with applicant's ability but will not be less than £500 per annum. Applications to Box A.V.2, The Institute of Physics, 47 Belgrave Square, S.W.1.

Vacancies exist for honours graduates in physics on the staff of the British Ceramic Research Association, to carry out research in the pottery, refractories and building materials industries. Posts will be in the Scientific Officer (£350–£550) and Senior Scientific Officer (£550–£900) grades, and are subject to superannuation provisions under F.S.S.U. Applications, together with details of age, qualifications and experience, should be addressed to the Director, British Ceramic Research Association, Queens Road, Penkhull, Stoke-on-Trent.

Physicist or Engineer, age 23–28, required for interesting development work on gramophone pick-ups and other radio components. Qualifications: degree or equivalent plus actual design experience. Experience on pick-ups would be an advantage. Write giving full particulars to Personnel Department, E.M.I. Engineering Development Ltd., Blyth Road, Hayes, Middx.

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